

Functional Training Influence and Roles in Developing Unit Readiness and Organization Lethality

by COL J. Frederick Dente, LTC Don L. Canterna, CPT Chris McMaster and CPT John Pai

The U.S. Army is uniquely positioned to fight and win across multiple domains. Our Soldiers are highly trained and fit, outperforming our adversaries in the chaos of battle. Our leaders are educated and confident, outthinking our adversaries to gain a position of relative advantage. Our equipment is equal to or better than any adversary's, providing the survivability and firepower overmatch required on today's battlefields. However, all these advantages rest on one fundamental truth: that we as an Army must first dominate our enemy through precise and lethal direct fire – fires that destroy his weapons, kill his soldiers, paralyze his command and control, and ultimately break his will to fight.

The Oxford Dictionary defines lethality as “the capacity to cause death, serious harm or damage.” Today many units struggle to build and maintain lethal superiority for multiple reasons. Frequent deployments, personnel turbulence and the increasing complexity of our tanks and combat vehicles make it difficult for units to build the necessary depth of technical and tactical knowledge and experience in our ranks to maximize our equipment's capabilities. Directly tied to both the Forces Command and Armor Training and Leader Development strategies, 316th Cavalry Brigade provides two lines of efforts (LoEs) that directly support the development of unit readiness and organization lethality within our formations. Both LoEs provide various courses of instruction to arm combat leaders with the skills, knowledge and abilities necessary to maximize the destructive capability of assigned equipment to deliver lethal direct fires against the enemy.

Individual and crew live-fire

For more than 43 years, master gunners have been instrumental in the development and training of live-fire competencies in the pursuit of platform lethality. In any armored or mechanized formation, the name “master gunner” is synonymous with developing excellence in a formation. The master gunner's mission is to train the unit for gunnery; he is the subject-matter expert for all weapon-system platforms and crew-served weapons. The master gunner advises commanders at all echelons and assists with the planning, development, execution and evaluation of all gunnery-related training (individual, crew and collective).

As part of the 2015 Maneuver Center of Excellence reorganization, all maneuver master-gunner programs have been centralized within 316th Cavalry Brigade under 1st Battalion, 29th Infantry Regiment. This effort has resulted in our ability to apply synergistic expertise to increase the lethality of Abrams, Bradley Fighting Vehicle (BFV), Stryker and mounted-machinegun formations across the Army. Together their expertise is being harvested to constantly update our doctrine; tactics, techniques and procedures; and programs of instruction to not only produce better-educated master gunners but assist in developing unit readiness and organization lethality within our formations.

Spring 2018 saw the early implementation of a redesigned master-gunner training strategy in support of how we integrate maneuver and live-fire requirements to develop platform lethality within our formations. To be awarded the additional skill identifier (ASI), a master-gunner candidate must now successfully complete two courses of instruction: the Master Gunner Common Core (MGCC) course and the platform-specific course of instruction.

Supportive of armored brigade combat team (BCT), Stryker BCT and infantry BCT formation sets, the MGCC course was developed to standardize instruction on curriculum that is non-platform-specific (i.e., common themes that have been identified throughout the separate courses). Instruction develops the student's understanding of integrated maneuver and live-fire requirements and methodologies, planning and implementation of live-fire training programs through the lens of conducting mounted-machinegun gunnery for vehicle crews. This approach ensures that all students receive the same foundation of instruction prior to learning the intricacies of their specific platform. A universal understanding of these foundational lessons result in commanders of combined-arms units receiving the same advisement from their graduates, regardless of their branch.

With the capability to produce up to 640 MGCC graduates annually, MGCC provides operational commanders the flexibility to build depth and manage their unit internal programs along three courses of action: send a Soldier to

attend both the common core and platform course; send a Soldier to common core and then the platform course at a later date; or send a Soldier to only common core. The latter is beneficial to units seeking to build depth, enhance their Excellence in Armor Program or develop experts in mounted-machinegun gunnery and the Integrated Weapons Training Strategy. Building depth aids a unit's ability to send the most qualified and capable candidate back to attend the platform master-gunner course at a later date while receiving an immediate return on investment in support of Objective-T training and reporting requirements.

The second course of instruction provides a natural recycle point for students to return to the course without having to repeat all 12 plus weeks of instruction and serves as the ASI-producing, platform-specific course of instruction for the Abrams, BFV and Stryker (Mobile Gun System (MGS), Anti-tank Guided Missile and Remote Weapon System variants). Instruction within these courses focuses on developing platform-specific maintenance, gunnery and unit-training-plan development. Graduates are awarded a platform-specific ASI, and unit master gunners establish their reputations as platform technical experts and critical planners for gunnery operations and vehicle qualifications.

Further enhancing the individual and crew live-fire LoE is the Gunnery Simulation Management Manager's Course (GSMMC), which has the capability to maximize an organization's understanding and use of blended and integrated training environments. Units use virtual and constructive training environments to supplement, enhance and complement live training, allowing units to reduce time, ammunition, simulations and range requirements. Training and education includes instruction on the simulations training-management process, Engagement Skills Trainer II, Virtual Battlespace 3, Advanced Gunnery Training System and Conduct of Fire Trainer-Situational Awareness systems. GSMMC graduates receive security/information-operations certification for their specific training platform (Abrams, BFV or Stryker MGS).

Leader development

The 316th conducts select functional training to educate and train leaders to command, lead and train maneuver formations to support the combined-arms fight. Leaders are by design uniquely positioned in their units to connect their formation to the larger unit and higher commander's intent. Personal observation of the training environment, leader actions and unit responsiveness provide unmatched situational understanding of a unit's capabilities. Institutional training and education within one of the various leader courses of instruction arm our combat leaders with doctrinally sound instruction. When combined with operational experience, the leader is provided a robust set of skills, knowledge and abilities necessary to maximize the destructive capability of their assigned equipment to deliver lethal direct fires against the enemy.

Within this LoE are six leader courses capable of being delivered in both resident and on-site (mobile training team) training venues: Bradley Leader's Course (BLC), Stryker Leader's Course (SLC), Heavy Weapons Leader's Course (HWLC), M1A2 SEP [system-enhancement program] Tank Commander's Course, MGS Commander's Course and Maneuver Leader Maintenance Course (MLMC), which is executed by 1-16 Cavalry Squadron. Each course provides a specialized capability for leaders assigned to each BCT type.

BLC is a four-week course open to sergeants through majors. Instruction centers on the BFV A3 and provides students the technical and tactical competence to fulfill a leadership position in a Bradley-equipped organization. The initial two weeks of instruction are technical-focused with training that covers the main internal functions of the BFV's hull and turret, preventive-maintenance checks and services (PMCS) and gunnery-skills training (GST), culminating with training in the Bradley Advanced Training Systems.

The final two weeks are tactical-focused with platoon-level training that integrates the application of troop-leading procedures (TLP) while operating in the Close Combat Tactical Trainer, a live-fire exercise (LFX) and a field-training exercise (FTX). Bradley leaders depart with observably higher fundamental mechanized platoon/section-leader skills and bring their confidence in practical knowledge of the M2 platform to their next unit, alleviating the gaining unit's need to allocate time or resources for a similar level of training.

SLC is a three-week course open to sergeants first class through majors. Instruction centers on the Stryker M1126 Infantry Carrier Vehicle and provides students the technical and tactical competence to fulfill a leadership position in a Stryker-equipped unit. The first two weeks are technical-focused with training that cover the Stryker variants and organization, vehicle internal functions and external capabilities, recovery operations, PMCS and GST. The last

week is tactical-focused with platoon-level training that covers TLP, vehicle employment, training in the Stryker Virtual Collective Trainer, an LFX and an FTX. Stryker leaders take away an appreciation for the maintenance of their vehicles, training of crew and section lethality, and understanding of the roles and responsibilities of junior leaders conducting mounted and dismounted operations.

HWLC is a two-week course open to sergeants through first lieutenants. Instruction covers the M98A2 Javelin system, the M41 Improved Target-Acquisition System and tube-launched, optically tracked, wire-guided missile, M3 Carl Gustaf and basic machinegun theory. HWLC is the only institutional course that executes in-depth training on the Javelin weapon system. While the course is not designed to certify gunners, the course will enable graduates to return to their organization with the ability to plan, resource and lead training on these weapon systems – a critical capability as the operational force continues to return focus to countering near-peer adversaries.

The M1A2 SEP Tank Commander's Course is a two-week course open to promotable sergeants through lieutenant colonels. This course focuses on technical instruction, which includes crew-station duties, tank maintenance, boresighting, armament-accuracy checks, plumb and synchronization, tank weapons, live-fire accuracy screening test, GST and tank gunnery. Students are trained using conventional methods, stand-alone training devices and simulations, with execution of Gunnery Table VI as the capstone. Performance-oriented training is M1A2 SEP-focused. This course is a gunnery-systems-intensive functional course that trains the Soldier to function as an M1A2 SEP tank commander.

The MGS Commander's Course is a two-week course open to promotable sergeants through lieutenant colonels. This is a systems-intensive course that trains the student to function as an MGS commander. Instruction consists of training crew stations and duties, boresighting and synchronization, ammunition, crew maintenance, turret/hull troubleshooting and safety. Students will be trained using conventional training methods, stand-alone training devices, simulators and simulations, culminating with a live-fire exercise.

MLMC is a two-week course open to sergeants first class through captains. Unlike many resources, operational readiness is a training resource that commanders control completely and, when conducted efficiently, sets the conditions for sustained readiness at echelon. This course grew out of a capability gap recognized by Army leadership and confirmed in a November 2017 Army Inspector General report, stating that many company-grade officers across the force lacked an understanding of Army maintenance standards and how to properly develop a maintenance plan for both garrison and tactical environments. The course provides an overview on Army systems – including Global Combat Support System-Army and Federal Logistics – as well as supporting maintenance organizations such as the brigade-support battalion and supply-support activity that officers will interact with in the force. Students also conduct practical training, including command maintenance with Soldiers, unit-maintenance standard operating procedure development and a practical exercise where they plan sustainment operations in a tactical environment.

Each of these LoEs and associated courses of instruction directly support the development of unit readiness and organization lethality. Our Army's ability to dominate the enemy across multiple domains rests in large part on the foundation of lethality. The ability to survive first contact, maneuver to a position of relative advantage and engage and destroy the enemy is predicated on the fact that our leaders and Soldiers can effectively employ their weapons and combat vehicles. As units continue to rebuild the depth of knowledge and technical excellence required to master these complex weapons, 316th Cavalry Brigade stands ready to assist in developing the technical and functional training required to build lethality that will assist your unit in its ability to decisively win the first direct-fire engagement of the next war.

COL Fred Dente's most recent assignment was as commander, 1st Squadron, 4th U.S. Cavalry, as part of a regionally aligned infantry brigade committed to U.S. African Command. Previous assignments include tank and scout platoons with 2-12 Cavalry in operational deployments to Bosnia and Kuwait; commander, A/1-63 Armor and HHC/2-2 Infantry through combat operations in Fallujah and An Najaf in Operation Iraqi Freedom II; operations officer and executive officer of 1/89 Cavalry conducting operations in Baghdad; chief of operations, 1st Infantry Division and Regional Command-East during stability and combat operations in Afghanistan; senior cavalry trainer, Cobra 07, National Training Center; strategic planner for the Secretary of the Army; executive assistant to the Secretary of Defense; and senior U.S. military adviser to the Ministry of Peshmerga in Erbil, Iraq. His military

education includes the Armor Officer Basic Course, M1A2 Tank Commander's Course, Scout Platoon Leader's Course, Armor Captain's Career Course, Command and General Staff College and U.S. Army War College. COL Dente is a graduate of George Washington University (distinguished military graduate). His awards and decorations include the Bronze Star Medal (5th award), Defense Meritorious Service Medal, Meritorious Service Medal (5th Award), Order of Saint George and Order of Saint Maurice. COL Dente may be reached at jerome.f.dente.mil@mail.mil.

LTC Don Canterna is operations officer, J-33-CT, U.S. Special Operations Command. Previous assignments include platoon leader for a combat-engineer platoon and assault-and-obstacle platoon, 4th Engineer Battalion, 4th Infantry Division, Fort Carson, CO; company executive officer, 4th Engineer Battalion, 4th Infantry Division, Fort Carson; plans officer, 1st Heavy Brigade Combat Team, 2nd Infantry Division, Camp Hovey, Republic of Korea; 1st Battalion, 508th Parachute Infantry Regiment, 82nd Airborne Division, Fort Bragg, NC; International Security Assistance Force Commander's Theater Tactical Force, Afghanistan; commander, Company B, 2nd Battalion, 75th Ranger Regiment; and battalion operations officer and executive officer, 1st Battalion, 8th Infantry Regiment, 4th Infantry Division, Fort Carson. His service includes deployments to Iraq in support of Operations Iraqi Freedom, three times to Afghanistan and Qatar in support of Operation Spartan Shield. LTC Canterna's military education includes Engineer Officer Basic Course, Ranger School, Sapper School, Infantry Captain's Career Course, Maxwell School of Citizenship and Public Affairs at Syracuse University (General Wayne A. Downing scholar), Joint Forces Staff College and Joint and Combined Warfighting School. He holds a bachelor's of science degree in biology from Rensselaer Polytechnic Institute and master's degrees in public administration and international relations from Syracuse University. LTC Canterna's awards and decorations include the Bronze Star Medal with valor device and three oak-leaf clusters, Defense Meritorious Service Medal and Meritorious Service Medal with three oak-leaf clusters.

CPT Chris McMaster commands Company B, 1st Battalion, 29th Infantry Regiment, Fort Benning, GA. Previous assignments include squadron assistant operations officer, 5th Squadron, 1st Cavalry Regiment, Fort Wainwright, AK; executive officer, Troop B, 5th Squadron, 1st Cavalry Regiment, with deployment to Kandahar Province, Afghanistan; and scout-platoon leader, Troop C, 5th Squadron, 1st Cavalry Regiment. CPT McMaster's military schools include Maneuver Captain's Career Course, Army Special Operations Captain's Career Course, Army Reconnaissance Course, Armor Officer's Basic Course and Airborne School. CPT McMaster holds a bachelor's of science degree in international relations from West Point and a master's of science degree in organizational leadership from Columbus State University. CPT McMaster may be queried at christopher.c.mcmaster.mil@mail.mil.

CPT John Pai commands Company D, 1st Battalion, 29th Infantry Regiment, Fort Benning, GA. Previous assignments include battalion assistant operations officer, 1st Battalion, 8th Cavalry Regiment, Fort Hood, TX, with deployment to Kandahar Province, Afghanistan; mechanized-infantry platoon leader, Company B, 1st Battalion, 8th Cavalry Regiment; and executive officer, Company B, 1st Battalion, 8th Cavalry Regiment. CPT Pai's military schools include Maneuver Captain's Career Course and Infantry Basic Officer Leader Course. CPT Pai holds a bachelor of arts degree in biblical studies and theology from Biola University. CPT Pai's email is john.s.pai.mil@mail.mil.

Acronym Quick-Scan

ASI – additional skill identifier
BCT – brigade combat team
BFV – Bradley Fighting Vehicle
BLC – Bradley Leader's Course
FTX – field-training exercise
GSMCMC – Gunnery Simulation Management Manager's Course
GST – gunnery-skills training
HWLC – Heavy Weapons Leader's Course
LFX – live-fire exercise
LoE – line of effort
MGCC – Master Gunner Common Core (Course)
MGS – Mobile Gun System
MLMC – Maneuver Leader Maintenance Course
PMCS – preventive-maintenance checks and services
SEP – system-enhancement program

SLC – Stryker Leader’s Course
TLP – troop-leading procedures